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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,681	01/31/2002	Jennifer Geske	10007033-1	2182
7590 07/13/2007 HEWLETT-PACKARD COMPANY Intellectual Property Administration P. O. Box 272400 Fort Collins, CO 80527-2400			EXAMINER QIN, YIXING	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 07/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/062,681	Applicant(s) GESKE ET AL.	
	Examiner Yixing Qin	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 12-14 and 16-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-14 and 16-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

In response to applicant's amendment received 4/24/07, all requested changes have been entered.

Response to Arguments

Applicant's arguments filed 4/24/07 have been fully considered but they are not persuasive. The arguments indicate that the order in which the steps takes place in the Buckley reference is different than the steps in the applicant's claimed invention. The Examiner respectfully disagrees. In column 5, lines 46-55 and column 12, lines 2-15 discloses image segmentation and MRC, both of which can be performed on the document in order to help with the statistical analysis. Both image segmentation and MRC can read upon processing the document to form a print job including print data. The print data would, for example, be the various information in the various layers in the MRC document. The drawing commands are the information that describe the text or images in the various layers of the document. Column 9, lines 42-59 discloses the usage of the information to appropriately calculate which portions of a document are text or graphics.

A similar argument is made for the claims regarding the collapsing or grouping of drawing commands into predetermined object types.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Inoue reference analyzes portions of the document to categorize the obtained image based upon statistical analysis. The inhibition of printing of counterfeit documents has been generally known. Since the Buckley reference discloses ways to identify images and to categorize them, it would not be far fetched to combine it with the teaching of Inoue as to expand the capabilities of the system so that prevention of printing of counterfeit documents can be implemented.

The rejection is therefore maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

I. Claims 1-7, 12, 13, 16, 20, 21, 23-27, 29-31, 33, 35-37, 43 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Buckley (U.S. Patent No. 6,542,173).

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Regarding claim 1, Buckley discloses a method controlling printing of a document, comprising:

processing the document to form a print job including print data, the print data including drawing commands, (column 7, lines 41-46)

analyzing the drawing commands to build statistical information about content within the print data (Fig. 1 and column 4, lines 56-62) ; and

categorizing the print job using the statistical information according to pre-specified categorization criteria. (Fig. 1 and column 4, lines 56-62).

Regarding claim 2, Buckley discloses wherein the analyzing the print data to build statistical information is incorporated in a printer driver. (column 8, lines 36-50, especially lines 40-44).

Regarding claims 3 and 20, Buckley discloses wherein at least a portion of the printer driver is a software printer driver. (column 8, lines 36-50, especially lines 40-44).

Regarding claim 4, Buckley discloses wherein at east a portion of the printer driver is a firmware printer driver. (column 8, lines 36-50, especially lines 40-44).

Regarding claims 5 and 29, Buckley discloses further comprising storing the categorization in a log file. (Fig. 5 – although shown is an user interface with object type

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and settings, it is inherent that this information is stored in a memory in the form of a file.

Also see column 6, lines 41- column 7, line 23).

Regarding claims 6, 30, The Buckley reference discloses “using the categorization information from the log file for examination, building, enhancing and verifying future categorization matches.” (column 6, lines 54-67 and column 7, lines 1-46).

Regarding claims 7, 24, and 31, Buckley discloses further comprising gathering input criteria from a user before a print job is initiated and categorizing the print job based on the statistical analysis and the input criteria. (column 4, lines 56-62, also column 4, lines 8-55 describes how an user can set parameters for document types)

Regarding claim 12, Buckley discloses further including:

processing the log file so as to determine effectiveness of the categorizing; and (column 6, lines 54-67 and column 7, lines 1-46).

updating the pre-specified categorization criteria so as to improve the effectiveness of the categorizing. (column 7, lines 24-34).

Regarding claims 13 and 26, Buckley discloses further including:

developing at least one new categorization category. (Fig. 3 shows text/photo and column 9, lines 42-59 discusses how if additional multi-document types are implemented and can be automatically selected).

Regarding claim 16, Buckley discloses wherein analyzing and categorizing are performed before the print job is printed. (column 8, lines 28-35).

Regarding claims 21, Buckley discloses further comprising a client monitoring program that determines whether a new classification category needs to be developed. (column 8, lines 36-67 to column 11, lines 1-48, especially column 9, lines 42-58).

Regarding claim 23, Buckley discloses in a system for electronically monitoring the contents of a print job generated from a document, a computer-readable medium having computer-executable instructions for performing a process on a computer, the process comprising:

processing the document to form a print job including print data, the print data including drawing commands, (column 7, lines 41-46)

statistically analyzing the print data to form object type percentages using the drawing commands; (Fig. 1 and column 4, lines 56-62)

classifying the print job using the statistical analysis and according to pre-specified categorization criteria; (Fig. 1 and column 4, lines 56-62) and

storing the classification in a log file and using the classification from the log file for examination and for building, enhancing and verifying future classification matches. (column 6, lines 54-67 and column 7, lines 1-46).

Regarding claim 25, Buckley discloses the computer-readable medium having computer-executable instructions for performing the process of claim 24, further comprising:

monitoring all print jobs and providing at least one of an automatic rejection, acceptance or confirmation of the print job as user feedback before the print job is sent to peripheral device. (column 9, lines 42-59).

Regarding claims 27 and 33, Buckley discloses a system for managing print jobs of documents containing at least one page, comprising:

means for collecting drawing commands for a given page; (column 11, lines 66 - column 12, lines 15)

means for collapsing the collected drawing commands into pre-determined categories; and (column 11, lines 66 - column 12, lines 15)

means for classifying the print job using the pre-determined classifications. (Fig. 1 and column 4, lines 56-62).

Regarding claim 35, Buckley discloses and wherein the pre-determined classifications include text, at least one of solid or unfilled circle line/graphics, clip art style images, and photographic images. (column 12, lines 2-14).

Regarding claim 36, Buckley discloses wherein the statistical module sorts the drawing commands by command type, and groups the sorted drawing commands into predetermined object types so as to identify a percentage of the drawing commands that is associated with each of the predetermined object types. (column 8, lines 2-7).

Regarding claim 37, Buckley discloses wherein the filtering module compares the percentage of the drawing commands associated with each of the predetermined object types against predefined percentages associated with the pre specified category criteria so as to identify the at least one predefined print job category. (column 8, lines 2-7).

Regarding claim 43, Buckley discloses wherein the analyzing includes sorting the drawing commands on each page of the print job by command type, and grouping the sorted drawing commands into predetermined object types so as to identify a percentage of the drawing commands in the print job that is associated with each of the predetermined object types. (column 8, lines 2-7).

Regarding claim 44, Buckley discloses wherein the categorizing includes comparing the percentage of the drawing commands associated with each of the predetermined object types against predefined percentages associated with the pre-specified categorization criteria so as to identify a category for the print job. (column 8, lines 2-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

II. Claims 8, 17-19, 28, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley (U.S. Patent No. 6,542,173).

Regarding claim 8, the Buckley reference discloses the analysis of print data using a printer driver.

It does not explicitly disclose "classifying the print job as an unknown job type if the categorizing is unsuccessful."

However, Buckley discloses in column 7, lines 47-62 various ways to categorize a document. In lines 55-62, Buckley discloses that it might be possible that a mix content type does not exist (i.e. undefined) and either the document would be printed

using a most-predominant or a default type. It is not explicitly stated that Buckley categorizes the document as an unknown job type, but clearly suggests so.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have an unknown type.

The motivation would have been to allow one software/hardware component to perform a print when certain documents do not fall within a certain category.

Therefore, it would have been obvious to use Buckley to obtain the invention as specified.

Regarding claim 17, Buckley discloses a system for managing printing operations on a computer, comprising:

an application program that generates drawing commands for printing a document, (column 6, lines 54-62)

a statistical module that collects drawing commands and collapses the collected drawing commands into pre-determined classifications; (column 11, lines 66-67 and column 7, lines 1-14) and

a filtering module coupled to the statistical module that filters the pre-determined classifications using pre specified category criteria and categorizes the print job into at least one predefined print job category. (Fig. 1 and column 4, lines 56-62).

Although Buckley does not call the items in his invention a statistical and a filtering module, the functions are essentially the same. Please see also, Fig. 2 and column 6, lines 66-67 and column 7, lines 1-23.

Regarding claim 18, Buckley discloses further comprising a secondary filter module that uses the pre-determined classifications and input criteria predefined by a user and relating to the printing operation for categorizing the print job. (column 4, lines 8-62). Again, Buckley does not explicitly have "a secondary filter," but does describe similar functions.

Regarding claim 19, Buckley discloses the system for managing printing operations of claim 17, wherein the drawings commands include at least one of vector graphics, raster graphics or textual fonts and are predefined by an administrator. (column 10, lines 26-39 and column 11 lines 66-67 and column 12, lines 1-14).

Regarding claim 28, Buckley discloses a printing system working in a computer environment, comprising:

an application program that generates print data for a print job, the print data including drawing commands; (column 6, lines 57-62)

a printer that receives the print data for printing the print jobs; (column 6, lines 57-62)

a software printer driver coupled to the printer and application program for analyzing the drawing commands to build statistical information about content within the print data; and (Fig. 1 and column 4, lines 56-62)

a filter module coupled to the software printer driver for categorizing the print job using the statistical information according to pre-specified categorization criteria. (Fig. 1 and column 4, lines 56-62).

Again, although Buckley does not call the items in his invention a statistical and a filtering module, the functions are essentially the same. Please see also, Fig. 2 and column 6, lines 66-67 and column 7, lines 1-23.

Regarding claim 32, Buckley discloses a client monitoring program that approves the print job and allows the print job to be printed. (column 8, lines 7-17).

Regarding claim 34, Buckley discloses in column 8, lines 2-7 there is calculation of the raw numbers for either the total number of objects or the total proportion.

It does not explicitly disclose counting the exact types of commands.

However, these commands are command in the printing art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used and counted these commands to determine the type of printing that should take place.

The motivation would have been to enable a printer to print optimally.

Therefore, it would have been obvious to improve Buckley to obtain the invention as specified.

III. Claims 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley (U.S. Patent No. 6,542,173) in view of Barrett (U.S. Patent No. 5,323,393).

Regarding claim 14, the Buckley reference discloses the analysis of print data using a printer driver.

It does not explicitly disclose "The method of claim 5, further including: processing the log file so as to characterize printing usage."

However, Barrett discloses in column 14 lines 37-68 to column 15, lines 1-9, that the statistical log information and the enhanced print service management can read on processing the log file to characterize printing usage.

Buckley and Barrett are combinable because both are in the art of optimizing print jobs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have an account of the usage information of a printing device if one were to have additional information in the log file such as that of the Barrett reference.

The motivation would have been to allow one to know what types and number of prints were printed so that one can know how to further optimize printing.

Therefore, it would have been obvious to use Buckley and Barrett to obtain the invention as specified.

Regarding claim 22, the Buckley reference discloses the analysis of print data using a printer driver.

It does not explicitly disclose "the client monitoring program is preprogrammed to send an error message to a user attempting to initiate the print job blocking all print jobs that are classified with unknown designations.

However, Barrett discloses in column 24, lines 37-40 that an LED signal informs an user of an error.

Buckley and Barrett are combinable because both are in the art of optimizing print jobs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have signaled an user of an error before printing.

The motivation would have been to allow one to know that a document is about to be printed.

Therefore, it would have been obvious to use Buckley and Barrett to obtain the invention as specified.

IV. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over as being unpatentable over Buckley (U.S. Patent No. 6,542,173) in view of Inoue et al (U.S. Patent No. 6,144,835)

Regarding claims 38 and 39, Buckley discloses a way to identify objects and categorize print jobs.

It does not explicitly disclose "wherein the categorizing denotes a print job category for the print job, the method further comprising inhibiting printing of the print job if the print job category matches a predefined category and further comprising informing an administrator if the print job category matches a predefined category."

However, Inoue et al discloses in Fig. 4 and column 8, lines 34-67 that printing of illegal documents can be prevented and a manager can be warned.

Buckley and Inoue are combinable because both are in the art of identification and categorization of images.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have improved the Buckley invention with a counterfeiting mechanism.

The motivation would have been to prevent users from printing certain documents.

Therefore, it would have been obvious to combine Buckley and Inoue to obtain the invention as specified.

V. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over as being unpatentable over Buckley (U.S. Patent No. 6,542,173) in view of the applicant's admitted prior art in the background of the invention ("background").

Regarding claim 40, Buckley discloses the printing of a print job according to a particular category.

It does not explicitly disclose "wherein the categorizing denotes a print job category for the print job, the method further comprising providing an incentive to a user if the print job category matches a predefined category."

However, the background states on page 4, lines 20-28 the offering of incentives to people based upon printing habits.

Buckley and the background are combinable because both are in the art of producing print jobs according after categorizing them for optimal printing.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have improved Buckley's invention with an incentive program.

The motivation would have been to reward users for printing certain documents and to attract further usage from those users.

Therefore, it would have been obvious to combine Buckley and the background to obtain the invention as specified.

VI. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over as being unpatentable over Buckley (U.S. Patent No. 6,542,173) in view of Bennett et al (U.S. Patent No. 5,146,344).

The Buckley reference discloses a way to categorize print data.

It does not explicitly disclose "wherein the categorizing denotes a print job category for the print job, the method further comprising billing a user according to a

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price associated with the print job category and wherein different print job categories have different prices."

However, Bennett discloses in Figs. 8A-8B and column 6, lines 18-46 that users can be charged for prints according to various billing rates.

Buckley and Bennett are combinable because both are in the art of determination of print job types.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have improved Buckley's invention and to have an accounting system.

The motivation would have been to appropriately charge users for printing.

Therefore, it would have been obvious to combine Buckley and Bennett to obtain the invention as specified.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

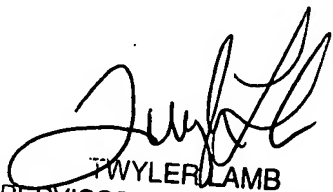
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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